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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/260,478 03/01/99 TITARU

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MMC1/0711

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EXAMINER

LAXTON, G

ART UNIT	PAPER NUMBER
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2838

DATE MAILED:

07/11/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

## Office Action Summary

Application No. 09/260,478	Applicant(s) Ionel Titaru
Examiner Gary Laxton	Group Art Unit 2838



Responsive to communication(s) filed on May 30, 2000

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

### Disposition of Claim

Claim(s) 1-7 is/are pending in the application.  
Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-7 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 5/30/00 have been fully considered but they are not persuasive.

The applicant has overlooked the inductor the Examiner was referring to. The applicant mistakenly assumed the Examiner was referring to inductor 36 when as stated in the first office action the Examiner was referring to saturable inductor (**SR1**) at node (40). Therefore, no new rejections are made and the original rejections stand.

### ***Claim Objections***

2. Claim 7 is objected to because of the following informalities: lines 3 and 4 state “being response to”. This phrase does not make sense. Again, please review the entire disclosure and correct all mistakes, including but not limited to, 112 2nd paragraph issues, spelling, grammar, and idiomatic errors. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371C of this title before the invention thereof by the applicant for patent.

4. Claims 1, 4 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Tan et al.

Tan et al discloses, in figure 1, a low impedance AC source (26) and an inductive element

“(SR1)” in series with the AC source. A bridge rectifier (32) with rectifying elements.

Furthermore, there is shown a capacitor (38). The voltage source modulates the energy transfer through the inductor and rectifier to the capacitor and load, obviously.

#### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al.

Tan et al discloses the claimed invention as stated above except for not allowing the current in the inductive element (SR2 or Lf) to reach zero before the voltage source switches polarity.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to change the current through an output inductor by varying the timing of the primary side

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switches to adjust the current level of an output inductive element to better control the output characteristics.

7. Claims 2 and 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al in combination with Cowett.

Tan et al discloses the claimed invention as stated above except for replacing the rectifier elements with controlled synchronous rectifiers.

Cowett shows a rectifier comprised of controlled switches (26A-26D). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to compose a rectifier out of controlled switches in order to accurately control the rectification process to produce a precise and controlled full wave rectified signal.

8. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al in view of Stacey et al.

Tan et al discloses the claimed invention as stated above except for replacing the rectifier elements with controlled synchronous rectifiers.

Stacey shows a rectifier comprised of controlled switches (26A-26D). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to compose a rectifier out of controlled switches in order to accurately control the rectification process to produce a precise and controlled full wave rectified signal.

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9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al in combination with Schutten et al.

Tan et al discloses the claimed invention as stated above except for a bi-directional switch.

Schutten et al shows that it was known in the art to use a bi-directional switch (16), of figure 1, that switches to position A or B to assist in shaping the output waveform.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a bi-directional switch in a rectifier to aid in shaping the output waveform for more precise output control.

### *Conclusion*

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Laxton whose telephone number is 703-305-7039. The examiner can normally be reached on 5-4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter S. Wong can be reached on 703-305-3477. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7723 for regular communications and 703-305-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



SHAWN RILEY  
PRIMARY EXAMINER

GLL

July 6, 2000